



INSTALLATION GUIDE

**PART NUMBER: 250005
FRONT UPPER CONTROL ARM KIT
GM C-1500 | 1988-1998**

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THANK YOU

Thank you for choosing our high quality Belltech product. We have spent a great deal of time developing our line of products so that you will receive maximum performance with minimal difficulty during installation. Soon your vehicle will be on the road looking and feeling much improved.

Please take a moment to read all instructions and warnings prior to installation of your new Belltech product and before operating your vehicle. If you have any questions or concerns regarding any step in the installation process, please do not hesitate to call or email our customer support specialists who are trained to help you through any portion of this process.

Before You Begin:

It is of the utmost importance that you confirm all of the components listed on the parts list is in the kit. You can find this list located on the last page(s) of your instructions. Do not begin installation if any part is missing. Instead, please call our Belltech customer service specialists.

Belltech Customer Support:

Phone: 1-800-445-3767

Email: info@belltech.com

Safety Information:

Warning: Do not work under a vehicle supported only by a jack. Place support stands securely under the vehicle in the manufacturer's specified locations unless otherwise instructed.

Proper use of safety equipment and eye/face/hand protection is absolutely necessary when performing any of the following instructions.

We strive for an exceptional experience for all our valued customers. If for any reason you need assistance with your Belltech products, please do not return the product to the store you purchased from, but rather call our dedicated customer service experts, from 7am to 5pm PST.

We recommend that a qualified mechanic, at a properly equipped facility, perform this installation.

It is very helpful to have an assistant available during installation.

Before Driving Your Vehicle:

It is important to double check all brake hoses, cables, and other components to be sure there is no interference. You must also check for wheel/tire to chassis/body interference. If any issues are found, review your installation instructions to be sure no steps were missed and any problems are corrected.

Make sure your vehicle is aligned immediately following installation.

Check all hardware and torque at intervals for the first 10, 100, and 1000 miles.

Some of Belltech's products are designed to improve your vehicle's off-road performance. Leveling/lifting/lowering your vehicle may result in an altered center of gravity. It is crucial to use extreme care when operating your vehicle to prevent rollover and/or loss of control.

Any changes in your vehicle's suspension may result in transformed handleability. Please test-drive your vehicle in a remote location so you can become accustomed to the revised driving characteristics.

Perform headlight check and adjustment.

Failure to drive any modified vehicle in a safe manner may result in harm or death.

Never operate your modified vehicle under the influence of drugs, alcohol, or lack of adequate sleep.

Always wear your seatbelt.



DIFFICULTY:



INSTALLATION TIME:

2-3 Hours +
Alignment

RECOMMENDED TOOLS:

- Properly rated floor jack
- Support stands
- Wheel chocks
- Metric and standard socket wrench set
- Metric and standard wrench set
- Tape measure
- Hammer and rubber mallet
- Safety glasses
- Paint or marking pen
- Spray paint
- Torque wrench rated up to 150 ft lbs.

SPECIALTY TOOLS:

- Angle grinder or cut-off wheel
- Ball joint removal tool

FITMENT NOTE:

Not all possible wheel sizes and backspacing can be tested. Cautiously check the wheel assembly to the spindle, suspension component, and fender/body clearance before tightening the lug nuts and rotating the wheel assembly. Belltech is not responsible for any wheel, tire, suspension component, and/or body damage caused by failure to check for interference.

JACKING, SUPPORTING, AND PREPARING THE VEHICLE

1. Park your vehicle on a smooth, level, concrete or seasoned asphalt surface.
2. Block the rear wheels of the vehicle using wheel chocks. Make sure the vehicle's transmission is in "PARK" (automatic) or 1st gear (manual).
3. Activate the parking brake.
4. Loosen, but do not remove, the front wheel lug nuts.
5. Lift the front of the vehicle off the ground using a properly rated floor jack. Lift the vehicle so the front tires are approximately 6-8 inches off the ground.
6. Place support stands rated for the vehicle's weight. The stands should be positioned in the factory specified locations. (Refer to the owners manual). Prior to lowering the vehicle onto stands, make sure the support stands will contact the chassis. It is very important that the vehicle is properly supported to prevent any harm to oneself or to the vehicle.
7. Lower the vehicle slowly onto the stands.
8. Remove the front wheels.



Technician reminder:

Never work under a vehicle supported only by a jack. It is necessary to place support stands securely under the vehicle in the manufacturer's specified locations unless otherwise instructed.

OEM SUSPENSION REMOVAL

9. Place jack stands under the lower control arms to prevent them from moving during installation.
10. Remove the two 11mm upper control arm brake line bracket bolts to detach the brake line from the upper control arm.



11. Remove the cotter pin from the original upper control arm ball joint. Loosen the castle nut from upper control arm ball joint but do not remove the nut.



12. Unset the upper ball joint using the proper ball joint puller or pickle fork separator.



OEM SUSPENSION REMOVAL CONTINUED

13. Once the upper ball joint is unset, remove the castle nut and lift the control arm to detach it from the spindle.



14. Remove the front most cam bolt, connecting the original upper control arm and the frame.



15. Hold the inside portion of the bolt so the cam bolt does not rotate.



16. Remove the rear most cam bolt from upper control arm and remove the upper control arm from the frame.



INNER FENDER MODIFICATION



Technician note:

The inner fenders must be modified to clear the suspension travel of the new Belltech control arm system. **Begin the modification on the driver side.**

17. Use a marker or paint pen to mark a cut line along the radius line running along the inner fender. Please see the image below for reference.



Technician warning:

Locate any lines/wires or cables behind the fender before cutting.

We recommend using a cut-off wheel.

DO NOT use any type of plasma cutter or torch.



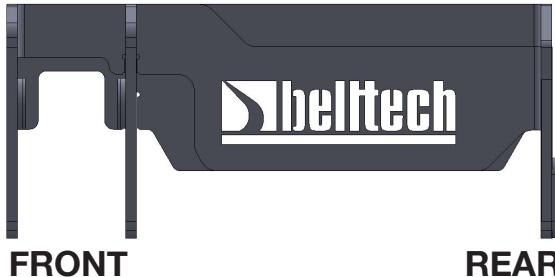
18. Do not cut more than the 30mm (1-3/16").



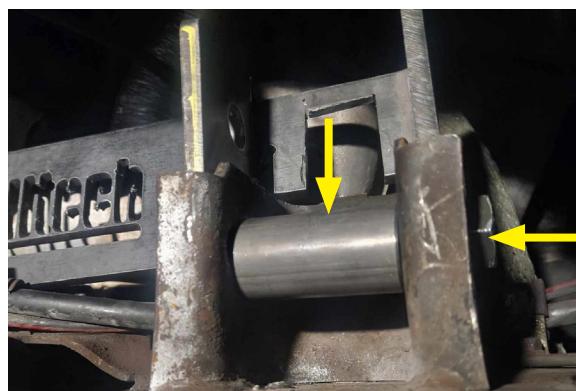
19. Use a file to clean and remove any sharp edges. Finish the newly cut surfaces with a thin coat of paint to prevent rust.

BELLTECH UPPER BRACES AND CONTROL ARMS INSTALLATION

20. The Belltech upper control arm brace goes around the front most upper control arm mount pivot point on the frame. At the rear, it is placed in front of pivot point.



21. Locate hardware kit 250005-777 and place the supplied 2.25" spacer tube in the original bolt hole location on the front pivot point. Fasten the spacer and upper control arm brace with the supplied M14 x 2.0-100mm bolt, M14 Nyloc nut, and washers. Run the bolt through the outside of the Belltech brace, passing through the spacer tube and out the opposite end. Do not torque yet.



Technician note:

The Belltech upper control arms are not pre-adjusted for camber or caster.

We recommend matching the length to the factory upper control arms and adjust when the vehicle is aligned.

22. The Belltech upper control arms need to be assembled and set to the starting length. Begin with one side of the Belltech upper control arm.

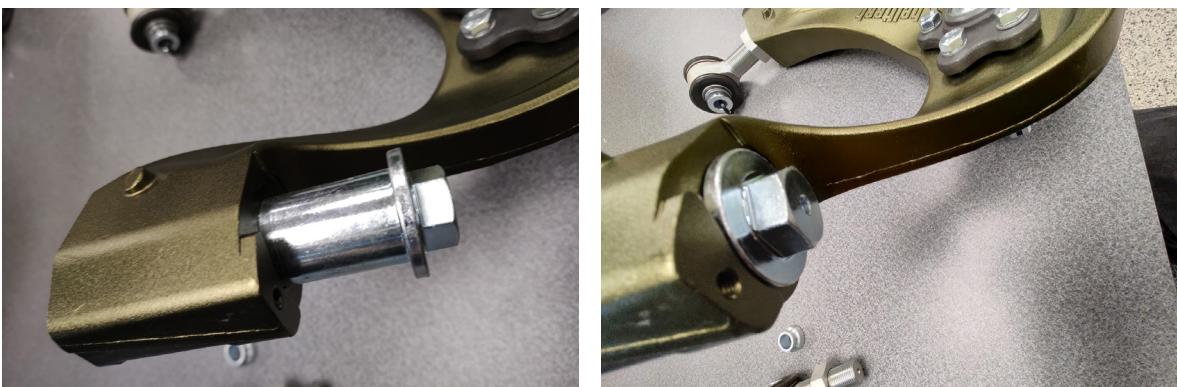


BELLTECH UPPER BRACES AND CONTROL ARMS INSTALLATION CONTINUED

23. Locate the adjuster sleeve for the control arm.



24. Slide the adjuster sleeve into the Belltech upper control arm.



25. Locate the Belltech sealed rod ends.



26. Attach the Belltech sealed rod ends onto the Belltech upper control arm adjuster sleeves. Add anti-seize on the threads of the rod end.



BELLTECH UPPER BRACES AND CONTROL ARMS INSTALLATION CONTINUED

27. Hand tighten the jam nut on the Belltech sealed rod end onto the Belltech upper control arm. DO NOT TORQUE YET.



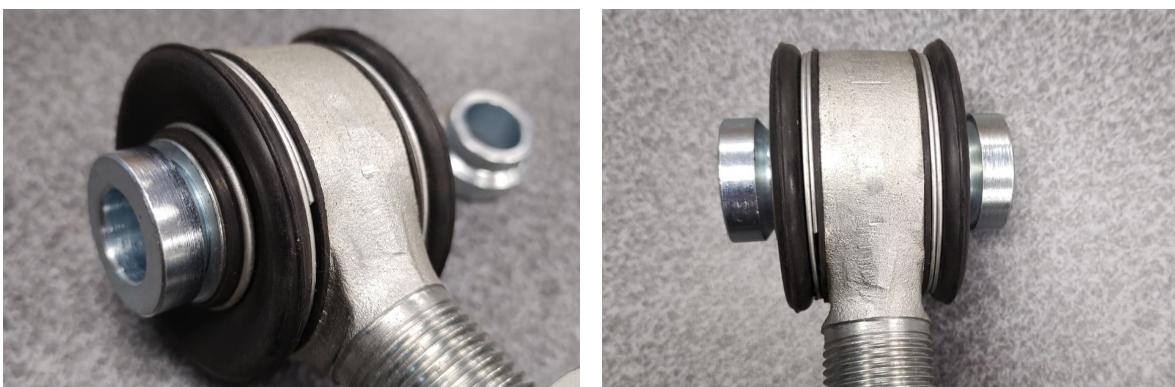
28. Locate the supplied Belltech CAM Lock plate, part# 250005-015, and attach it to adjuster sleeve hex head on the Belltech upper control arm.



29. Fasten the CAM lock plate onto the control arm with the supplied M6 bolt and washer. Hand tighten the bolt onto the Belltech upper control arm. DO NOT TORQUE YET.



30. Locate the rod end spacers, part# 119011-954, two per side. Slide the spacers onto the Belltech sealed rod end.



BELLTECH UPPER BRACES AND CONTROL ARMS INSTALLATION CONTINUED

31. Locate the control arm brake line bracket, part# 250005-005-954 along with the supplied M6 bolt and washers.



32. Attach the control arm brake line bracket onto the Belltech upper control arm. Torque to 10 ft lbs.



33. The Belltech upper control arm is assembled and ready to install.



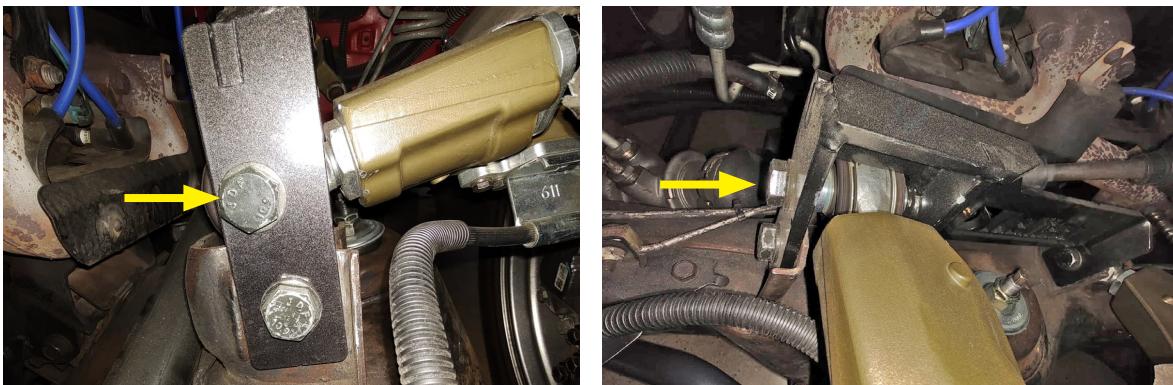
Technician note:

We recommend matching the length to the factory upper control arms and adjust when the vehicle is aligned.



BELLTECH UPPER BRACES AND CONTROL ARMS INSTALLATION CONTINUED

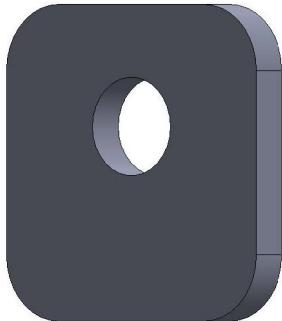
34. Attach the Belltech upper control arm sealed rod end onto the Belltech upper brace on the forward most mount of the brace. Fasten the rod end to the brace with the supplied M14 x 2.0-100mm bolt. Slide the bolt through the Belltech brace and Belltech sealed rod end. Hand tighten only.



35. Attach the opposite side of the control arm with the supplied M14 x 2.0-100mm and washer, sliding them through the Belltech brace and Belltech sealed rod end, DO NOT ATTACH the outer washer or nut yet.



36. Place the supplied CAM plate, part# 250005-010-99S, toward the rear of the vehicle at the factory CAM tabs. Fasten the CAM and bolt with the supplied M14 Nyloc nut and outer washer.



BELLTECH UPPER BRACES AND CONTROL ARMS INSTALLATION CONTINUED

37. Torque down the three (3) M14 bolts securing the Belltech upper control arm to the Belltech brace and factory locations. Torque to 100 ft lbs.



38. Attach the Belltech upper control arm onto the spindle. Use the supplied Castle nut. Torque to 74 ft lbs. and continue tightening until cotter pin can slide through.



39. Attach the brake line bracket onto the Belltech upper control arm using the supplied M6 bolts.



Technician note:

Some aftermarket brake lines have slightly different brackets. Modifications may need to be made to the brackets for proper installation.



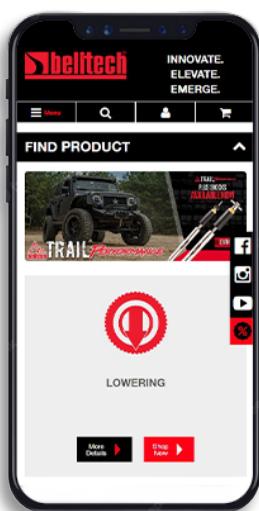
40. Lower the jack stands from supporting the lower control arms.

FINALIZING THE INSTALLATION

41. Mount the wheels and tighten the lug nuts.
42. Lift the vehicle and remove the support stands.
43. Carefully lower the vehicle onto flat ground.
44. Torque the lug nuts to 125 ft lbs.
45. Check that all components and fasteners have been properly installed and torqued.
46. Read and perform all tasks in the “Before Driving Your Vehicle” section of page 1 of your instructions.

THANK YOU FOR CHOOSING BELLTECH.

You are now a part of the Belltech family and we are eager to catch a glimpse of your newly modified vehicle. Give us a shout out and let us know how much you love our product. Don't forget, we offer other Belltech related merchandise for you and your vehicle on our website www.belltech.com



If you have any questions, concerns, or warranty related issues regarding your Belltech product, please call or email our experienced customer service specialists.

Belltech Customer Support:

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Email: info@belltech.com

POST-INSTALLATION WHEEL ALIGNMENT



Technician reminder:

After installation, a final shop alignment procedure is required.

To perform the wheel alignment using the adjuster sleeves on the Belltech upper control arm, the CAM lock plates need to be removed from the adjuster sleeve hex heads first. The jam nuts on the sealed rod ends need to be pushed away from the arm.



When the vehicle is on turn plates, the sleeves can be turned to adjust camber and caster.

Once desired alignment is achieved, fasten the CAM lock plate onto the control arm with the M6 bolt and washer. Hand tighten the bolt onto the Belltech upper control arm.



Tighten the sealed rod end jam nut against the Belltech upper control arm to finalize the adjustment.



KIT CONTENTS

250005		
Part number	Description	Qty
250005-A100L	CONTROL ARM (LH) (UPPER)	1
250005-A100R	CONTROL ARM (RH) (UPPER)	1
250005-001-99S	CONTROL ARM BRACE (LH)	1
250005-002-99S	CONTROL ARM BRACE (RH)	1
250005-777	HARDWARE KIT	1

250005-777		
Part number	Description	Qty
110220	M14 X 2.0 - 100MM BOLT	6
110222	M14 X 2.0 NYLOC NUT	6
110223	M14 WASHER	12
112476-954	2.25" SPACER TUBE	2
250005-010	SQUARED CAM PLATE	2
119011-954	ROD END SPACER	2
250005-005	BRAKE LINE BRACKET	2



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